

Submission of Replacement Drawing Sheet

A replacement drawing sheet is submitted herewith for Fig. 4 in order to correct a minor informality.

Entry and approval of this replacement drawing sheet is respectfully requested.

REMARKS

Claims 1-11 are pending in this application. By this Amendment, claims 1, 3-5, 7, and 9-11 are amended. Reconsideration of the application based on the above amendments and the following remarks is respectfully requested.

Applicant notes that a number of editorial amendments have been made to the specification for grammatical and general readability purposes. No new matter has been added.

A replacement drawing sheet is submitted herewith for Fig. 4 in order to change the word "Filing" in step 206 to "Filling." Entry and approval of this replacement drawing sheet is respectfully requested.

Applicant thanks the Examiner for indicating that claims 4, 5 and 7 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Applicant has rewritten claims 4, 5 and 7 in independent form, thereby placing these claims in condition for allowance.

On page 2 of the Office Action, claims 1-3, 6, and 8-11 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kawaguchi (U.S. Patent No. 6,482,126). Applicant respectfully traverses this rejection on the following basis.

Independent claim 1 recites input clutch control means for controlling an input clutch so as to start a cut-off operation in a period of time from when a cut-off operation of a gear shift clutch used before the gear shifting is started to when a connecting operation of a selected gear shift clutch to be used after the gear shifting is completed, switching the input clutch from the connected state to a power transmittable sliding state, and maintaining the sliding state at least until the connecting operation of the gear shift clutch to be used after the gear shifting is completed. Kawaguchi fails to disclose this feature for the following reasons.

At the outset, it should be noted that the invention disclosed in Kawaguchi relates to a control device for a lockup mechanism of an automatic transmission for a typical automobile. In this regard, the lockup clutch of an automatic transmission for a typical automobile is provided in parallel with a torque converter, for directly connecting the input shaft of the transmission with the output shaft of the torque converter. Thus, according to this configuration the lockup clutch

is controlled for the purpose of speed matching between the shafts of the engine and the transmission. Additionally, according to this configuration the output shaft of lockup clutch in Kawaguchi does not remain connected at all times during the shifting operation. That is, when shifting begins, the output shaft of the lockup clutch is disconnected from the input shaft of the transmission, and the shafts are reconnected after the shifting is completed.

In contrast, the input clutch recited in the present claims is a modulation clutch that is provided for adjusting power transmitted to an operating power train to increase the power transmitted to a work machine according to a work condition, and to prevent a slippage of the work machine. Importantly, the gear control device recited in the present claims does not control the input clutch to lock up the input shaft of an automatic transmission to the output shaft of the input clutch. Thus, for at least this reason, the gear shift control device recited in claim 1 is distinguished over Kawaguchi.

Furthermore, as noted above, claim 1 recites that the input clutch control means controls the input clutch so as to start a cut-off operation in a period of time from when a cut-off operation of the gear shift clutch used before the gear shifting is started to when a connecting operation of the selected gear shift clutch to be used after the gear shifting is completed, and the input clutch is maintained in a power transmittable sliding state without completely cutting-off the connection. On the other hand, as discussed above, the lockup clutch of Kawaguchi does not remain connected during the shifting operation.

For at least the above reasons, Kawaguchi fails to disclose all of the features recited in claim 1. Accordingly, claim 1 is clearly allowable over Kawaguchi.

Like claim 1, independent claim 9 also recites starting a cut-off operation of the input clutch to switch the input clutch from a connected state to a power-transmittable sliding state, and maintaining the sliding state at least until the connecting operation of the gear shift clutch to be used after the gear shifting is completed. Thus, for reasons similar to those discussed above with respect to claim 1, independent claim 9 also is clearly allowable over Kawaguchi.

Claims 2, 3, 6, and 8 depend from claim 1, and claims 10 and 11 depend from claim 9. Accordingly, Applicant submits that claims 2, 3, 6, 8, 10 and 11 are patentable at least by virtue

of their dependency.

In view of the above, it is submitted that the claims are allowable over the prior art of record and that the present application is now clearly in condition for allowance. The Examiner therefore is requested to pass this case to issue.

In the event that the Examiner has any comments or suggestions of a nature necessary to place this case in condition for allowance, then the Examiner is requested to contact Applicant's undersigned attorney by telephone to promptly resolve any remaining matters.

Respectfully submitted,

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